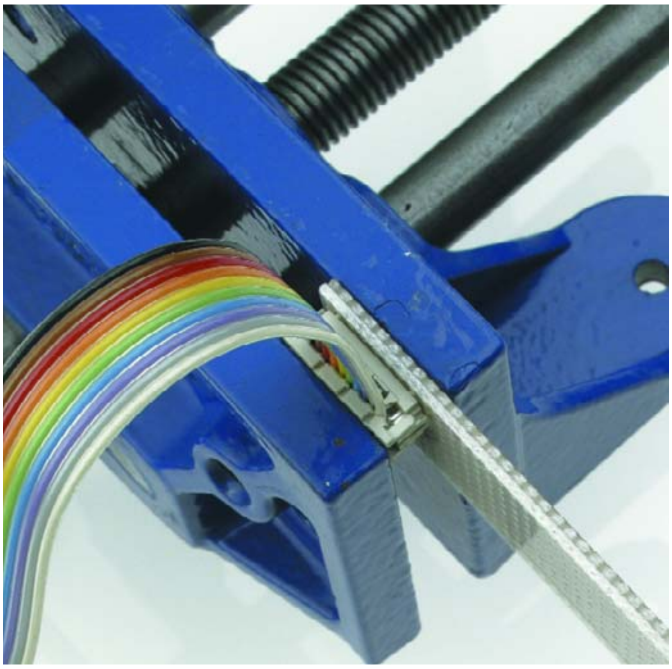

Self-tapping screws

Many ABS but also aluminium, steel and other light metal enclosures like diecast are closed with self-tapping screws secured directly into the carrier material. In general, this works fine but you may run into a problem when a screw has been removed and needs to be secured again. For example, when self-tapping screws are reinserted just like that after a repair or battery replacement, it may happen that the screw appears to cut a new thread into the carrier material. If this happens a few times, the screw hole will be enlarged to the extent that the screw will no longer provide the necessary force to keep the case together.

A simple trick of the trade may prevent such problems: when the screw is reinserted, first turn it counter clockwise until you feel it rising and suddenly dropping again. With metal enclosures this is even audible. Exactly at this point, start turning the screw clockwise again and secure it.

Of course, the thread cut into an ABS or soft metal case is subject to normal wear, hence the above trick cannot be repeated too many times. None the less, the method will help to increase the life expectancy of the screw joint considerably. If things do go wrong, make the hole a bit smaller with a small piece of plastic or a matchstick, if necessary adding a drop of permanently flexible glue.

Pressing matters with flatcable connectors

Although special tools are available to press IDCs (insulation displacement connectors) onto flatcables, a small vise will also do the job. Unfortunately the vise method cannot be applied to DIP IC and mini DIP connectors without squashing the delicate pins. The trick is to insert the pins into a few layers of veroboard or stripboard (the number of layers you need depends on the pin length) and so protect the pins from the pressure exerted by the vise jaws. The holes in the stacked pieces of veroboard have to be accurately aligned before inserting the connector pins. The 'assembly' is then ready for clamping in the vise. You may want to turn the makeshift solution into a permanent tool by using strips of veroboard with lengths and widths to suit different types of IDC connector. Secure the stacked strips with two-component glue.